

What is claimed is:

1. A compound of formula (I) wherein

n is from 0-2;

r is from 0 to 2

m is from 0-4;

J is unsubstituted or substituted once or twice by Q, wherein

J is aryl, heteroaryl, cycloalkyl or heterocycloalkyl, wherein

aryl is an aromatic radical having from 6-14 carbon atoms, such as phenyl, naphthyl, fluorenyl and phenanthrenyl;

heteroaryl is an aromatic radical having from 4-14, especially from 5-7 ring atoms, of which 1, 2 or 3 atoms are chosen independently from N, S and O, such as furyl, pyranlyl, pyridyl, 1,2-, 1,3- and 1,4-pyrimidinyl, pyrazinyl, triazinyl, triazolyl, oxazolyl, quinazolyl, imidazolyl, pyrrolyl, isoxazolyl isothiazolyl, indolyl, isoindolyl, quinolyl, isoquinolyl, purinyl, cinnolyl, naphthyridinyl, phthalazinyl, isobenzofuranyl, chromenyl, purinyl, thianthrenyl, xanthenyl, acridinyl, carbazolyl and phenazinyl;

cycloalkyl is a saturated cyclic radical having from 3-8, preferably from 5-6 ring atoms, such as cyclopropyl, cyclopentyl and cyclohexyl;

heterocycloalkyl is a saturated cyclic radical having from 3-8, preferably from 5-6 ring atoms, of which 1, 2 or 3 atoms are chosen independently from N, S and O, such as piperidyl, piperazinyl, imidazolidinyl, pyrrolidinyl and pyrazolidinyl;

Q is a substituent on 1 or 2 carbon atoms selected from the group consisting of halogen, unsubstituted or substituted lower alkyl, -OR₂, -SR₂, -N(R)R, -NRS(O)₂N(R)R, -NRS(O)₂R, -S(O)R₂, -S(O)₂R₂, -OCOR₂, -C(O)R₂, -CO₂R₂, -NR-COR₂, -CON(R₂)R₂, -S(O)₂N(R₂)R₂, cyano, *tri*-methylsilanyl, unsubstituted or substituted aryl, unsubstituted or substituted heteroaryl, such as substituted or unsubstituted imidazolyl, and substituted or unsubstituted pyridinyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted heterocycloalkyl, such as substituted or unsubstituted piperidinyl, substituted or unsubstituted piperazolyl, substituted or unsubstituted tetrahydropyranlyl, and substituted or unsubstituted azetidyl,

- 127 -

-C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl, -C₁₋₄alkyl-heterocyclyl, amino, mono- or di-substituted amino, heteroaryl-aryl;

R is H, lower alkyl or loweralkoxy-alkyl;

R₂ is unsubstituted or substituted alkyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted phenyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl or -C₁₋₄alkyl-heterocycloalkyl;

X is a bond, Y, -N(R)-, oxa, thio, sulfone, sulfoxide, sulfonamide, amide, or ureylene, preferably -NH-, -NHC(O)-, -NHC(O)NH-;

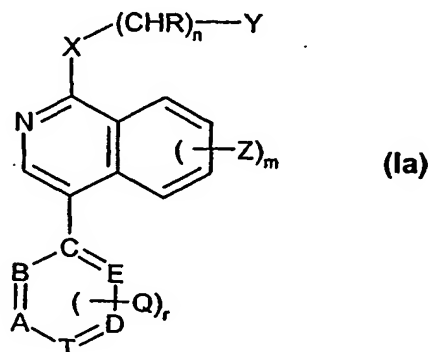
Y is H, lower alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl or substituted or unsubstituted heterocycloalkyl; and

Z is amino, mono- or di-substituted amino, halogen, alkyl, substituted alkyl, hydroxy, etherified or esterified hydroxy, nitro, cyano, carboxy, esterified carboxy, alkanoyl, carbamoyl, *N*-mono- or *N,N*-di-substituted carbamoyl, amidino, guanidino, mercapto, sulfo, phenylthio, phenyl-lower alkylthio, alkylphenylthio, phenylsulfinyl, phenyl-lower alkylsulfinyl, alkylphenylsulfinyl, phenylsulfonyl, phenyl-lower alkanesulfonyl or alkylphenylsulfonyl, and where, if more than one radical Z is present ($m \geq 2$), the substituents Z are identical or different;

or an *N*-oxide of the mentioned compound, wherein one or more *N* atoms carry an oxygen atom;

or a pharmaceutically acceptable salt thereof.

2. A compound of formula (Ia)



wherein

r is from 0-2;

- 128 -

n is from 0-2;

m is from 0-4;

A, B, D, E and T are each CH or CQ or

A, B, D and E are each CH or CQ and T is N or

B, D, E. and T are each CH or CQ and A is N or

A, B, T and E are each CH or CQ and D is N or

A, B, D, and T are each CH or CQ and E is N or

A, B and D are each CH or CQ and E and T are N or

B, E, and T are each CH or CQ and A and D are each N or

A, D and T are each CH or CQ and B and E are each N or

A and D are each CH or CQ and B, E and T are each N;

Q is a substituent on 1 or 2 carbon atoms selected from the group consisting of halogen, unsubstituted or substituted lower alkyl, -OR₂, -SR₂, -N(R)R, -NRS(O)₂N(R)R, -NRS(O)₂R, -S(O)R₂, -S(O)₂R₂, -OCOR₂, -C(O)R₂, -CO₂R₂, -NR-COR₂, -CON(R₂)R₂, -S(O)₂N(R₂)R₂, cyano, *tri*-methylsilanyl, unsubstituted or substituted aryl, unsubstituted or substituted heteroaryl, such as substituted or unsubstituted imidazolyl, and substituted or unsubstituted pyridinyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted heterocycloalkyl, such as substituted or unsubstituted piperidinyl, substituted or unsubstituted piperazolyl, substituted or unsubstituted tetrahydropyranyl, and substituted or unsubstituted azetidyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl, -C₁₋₄alkyl-heterocyclyl, amino, mono- or di-substituted amino, heteroaryl-aryl;

R is H, lower alkyl or loweralkoxy-alkyl;

R₂ is unsubstituted or substituted alkyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted phenyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl or -C₁₋₄alkyl-heterocycloalkyl;

X is a bond, Y, -N(R)-, oxa, thio, sulfone, sulfoxide, sulfonamide, amide, or ureylene, preferably -NH-, -NHC(O)-, -NHC(O)NH-;

Y is H, lower alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl or substituted or unsubstituted heterocycloalkyl; and

Z is amino, mono- or di-substituted amino, halogen, alkyl, substituted alkyl, hydroxy, etherified or esterified hydroxy, nitro, cyano, carboxy, esterified carboxy, alkanoyl,

- 129 -

carbamoyl, *N*-mono- or *N,N*-di-substituted carbamoyl, amidino, guanidino, mercapto, sulfo, phenylthio, phenyl-lower alkylthio, alkylphenylthio, phenylsulfinyl, phenyl-lower alkylsulfinyl, alkylphenylsulfinyl, phenylsulfonyl, phenyl-lower alkanesulfonyl or alkylphenylsulfonyl, and where, if more than one radical Z is present ($m \geq 2$), the substituents Z are identical or different;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

3. A compound of Claim 2,
wherein

r is from 0-2;

n is 0 or 1;

m is 0 or 1;

A, B, D and E are each CH or CQ and T is N or

A, B, T and E are each CH or CQ and D is N or

A, B and D are each CH or CQ and E and T are each N;

Q is a substituent on one or two carbon atoms selected from the group consisting of halogen, unsubstituted or substituted lower alkyl, -OR₂, -SR₂, -NR₂, -NRS(O)₂N(R)₂, -NRS(O)₂R, -S(O)R₂, -S(O)₂R₂, -OCOR₂, -C(O)R₂, -CO₂R₂, -NR-COR₂, -CON(R)₂, -S(O)₂N(R)₂, cyano, tri-methylsilyl, unsubstituted or substituted aryl, unsubstituted or substituted heteroaryl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted heterocycloalkyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl, -C₁₋₄alkyl-heterocyclyl, amino, mono- or di-substituted amino;

R is H or lower alkyl,

R₂ is unsubstituted or substituted alkyl, unsubstituted or substituted cycloalkyl, phenyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl or -C₁₋₄alkyl-heterocycloalkyl;

X is -NR-, oxa or thia;

Y is phenyl that is unsubstituted or substituted by one or two identical or different substituents selected from the group consisting of amino; lower alkanoylamino, halogen, lower alkyl, halo-lower alkyl, hydroxy; lower alkoxy, phenyl-lower alkoxy, and cyano, or alternatively or additionally to the preceding group of substituents, lower alkenyl, C₈₋₁₂alkoxy, lower alkoxycarbonyl, carbamoyl, lower alkylcarbamoyl, lower alkanoyl, halo-lower alkyloxy, lower alkoxycarbonyl, lower alkylmercapto, halo-

- 130 -

lower alkylmercapto, hydroxy-lower alkyl; lower alkanesulfonyl, halo-lower alkanesulfonyl, phenylsulfonyl, dihydroxybora ($-B(OH)_2$) and lower alkylenedioxy or

Y is pyridyl; and

Z is halogen, amino, *N*-lower alkylamino, hydroxy-lower alkylamino, phenyl-lower alkylamino, *N,N*-di-lower alkylamino, *N*-phenyl-lower alkyl-*N*-lower alkylamino, *N,N*-di-lower alkylphenylamino, lower alkanoylamino, or a substituent selected from the group consisting of benzoylamino and phenyl-lower alkoxy-carbonylamino, wherein the phenyl radical in each case is unsubstituted or is substituted by nitro or by amino, or also by halogen, amino, *N*-lower alkylamino, *N,N*-di-lower alkylamino, hydroxy, cyano, carboxy, lower alkoxy-carbonyl, lower alkanoyl or by carbamoyl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

4. A compound of Claim 3,

wherein

r is from 0-2;

n is 0 or 1;

m is 0 or 1;

A, B, D and E are each CH or CQ and T is N, or A, B and D are each CH or CQ and E and T are each N;

- 131 -

Q is bonded to A, to D or to A and D; and is selected from fluorine, chlorine or bromine, methyl, ethyl, propyl; hydroxy, methoxy, ethoxy, 2-hydroxyethoxy, 2-methoxyethoxy, (2-(1*H*-imidazol-1-yl)ethoxy, hydroxyiminomethyl, acetyl, formyl, methylmercapto, or amino, *N*-methylamino, *N*-ethylamino, *N*-(*n*)-propyl- or *N*-isopropylamino, 2-cyanoethylamino, 3-(methoxyphenyl)amino, 3-(4-morpholinyl)propylamino, 3-(pyridinyl)methylamino, 2-(2-pyridinyl)ethylamino, 4-(1*H*-imidazol-1-yl)butylamino, 4-(trifluoromethoxyphenyl)amino), (methylaminosulfonyl)amino, (methylsulfonyl)amino, (tetrahydro-2*H*-pyran-4-yl)amino, (tetrahydro-2*H*-pyran-4-yl)methylamino, (tetrahydro-3-furanyl)amino, (2-(1*H*-imidazol-1-yl)ethyl)amino, 2-hydroxyethylamino, (2-methoxyethyl)methylamino, 2-(2-hydroxyethoxy)ethylamino, spirans, 1-azetidiny, 3-ethoxycarbonyl-1-azetidiny, 3-carboxy-1-azetidiny, tetrahydro-2*H*-1,3-oxazinyl, dihydro-1,2,5-oxathiazin-5(6*H*)-yl, tetrahydro-1(2*H*)-pyrimidinyl, 3-(acetyltetrahydro)-1(2*H*)-pyrimidinyl, piperazinyl, 4-(2-hydroxyethyl)-1-piperazinyl, 4-(ethoxycarbonyl)-1-piperazinyl, 4-acetyl-1-piperazinyl, piperidinyl, 4-(trifluoromethyl)-1-piperidinyl, 4-(difluoromethyl)-1-piperidinyl, 4-(phenylmethyl)-1-piperidinyl, 4-phenoxy-1-piperidinyl, 4-cyano-1-piperidinyl, 4-methoxy-1-piperidinyl, 4-ethoxycarbonyl-1-piperidinyl, 4-hydroxy-1-piperidinyl, 4-carboxy-1-piperidinyl, 4-(aminocarbonyl)-1-piperidinyl, 4-methylthio-1-piperidinyl, 4-methylsulfonyl-1-piperidinyl, (tetrahydro-2*H*-pyran-4-yl)oxy, 4-morpholinyl, 3,5-dimethylmorpholinyl or 2-phenyl-4-morpholinyl;

R is H or methyl;

X is -NR-, oxa or thia;

Y is phenyl that is unsubstituted or substituted by one or two identical or different substituents selected from amino; acetylamino; fluorine, chlorine or bromine; *tert*-butyl, methyl, ethyl or propyl; trifluoromethyl; hydroxy; methoxy, ethoxy; benzyloxy; cyano, or (alternatively or additionally to the preceding group of substituents) ethenyl, C₈₋₁₂alkoxy, *tert*-butoxycarbonyl, carbamoyl, *N*-methyl-carbamoyl or *N-tert*-butyl-carbamoyl, acetyl, phenyloxy, trifluoromethoxy, 1,1,2,2-tetrafluoroethoxy, ethoxycarbonyl, methylmercapto, trifluoromethylmercapto, hydroxymethyl, methanesulfonyl, trifluoromethanesulfonyl, phenylsulfonyl, dihydroxybora (-B(OH)₂), 2-methyl-pyrimidin-4-yl, oxazol-5-yl, 2-methyl-1,3-dioxolan-2-yl, 1*H*-pyrazol-3-yl, 1-methyl-pyrazol-3-yl, methylenedioxy, bonded to two adjacent carbon atoms or

- 132 -

Y is pyridyl, 2-, 3- or 4-aminophenyl, 2-, 3- or 4-acetylamino-phenyl, 2-, 3- or 4-fluorophenyl, 2-, 3- or 4-chlorophenyl, 2-, 3- or 4-bromophenyl, 2,3-, 2,4-, 2,5- or 3,4-dichlorophenyl, chloro-fluoro-phenyl, 4-chloro-2-fluoroanilino, 2-, 3- or 4-methylphenyl, 2-, 3- or 4-ethylphenyl, 2-, 3- or 4-propylphenyl, methyl-fluoro-phenyl, 2-, 3- or 4-trifluoromethylphenyl, 2-, 3- or 4-hydroxyphenyl, 2-, 3- or 4-methoxyphenyl, 2-, 3- or 4-ethoxyphenyl, methoxy-chloro-phenyl, 2-, 3- or 4-benzyloxyphenyl, 2-, 3- or 4-cyanophenyl, 2-, 3- or 4-methylphenyl, 4-chloro-5-trifluoromethylphenyl, 3-bromo-5-trifluoromethylphenyl, 3,5-dimethylphenyl, 4-methyl-3-iodophenyl, 3,4-*bis*(trifluoromethyl)phenyl, 3-bromo-4-ethyl-phenyl or 3-chlorobenzylphenyl; and

Z is halogen, amino, *N*-lower alkylamino, hydroxy-lower alkylamino, phenyl-lower alkylamino, *N,N*-di-lower alkylamino, *N*-phenyl-lower alkyl-*N*-lower alkylamino; *N,N*-di-lower alkylphenylamino, lower alkanoylamino or a substituent selected from the group consisting of benzoylamino and phenyl-lower alkoxy-carbonylamino, wherein the phenyl radical in each case is unsubstituted or, is substituted by nitro or by amino, or also by halogen, amino, *N*-lower alkylamino, *N,N*-di-lower alkylamino, hydroxy, cyano, carboxy, lower alkoxy-carbonyl, lower alkanoyl or by carbamoyl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

5. A compound of Claim 2,

wherein

r is 1;

n is 0;

m is 0;

B, D, E, and T are CH or CQ and A is N or

A, B, D and E are each CH or CQ and T is N;

Q is a substituent on one or two carbon atoms selected from fluorine, chlorine, methyl, ethyl, propyl; amino, *N*-methylamino, *N*-ethylamino, *N*-(*n*)-propylamino, *N*-isopropylamino, 2-cyanoethylamino, 3-(methoxyphenyl)amino, 3-(4-morpholinyl)propylamino, 3-(pyridinyl)methylamino, 2-(2-pyridinyl)ethylamino, 4-(1*H*-imidazol-1-yl)butylamino, 4-(trifluoromethoxyphenyl)amino, (methylaminosulfonyl)amino, (methylsulfonyl)amino, (tetrahydro-2*H*-pyran-4-yl)amino, (tetrahydro-2*H*-pyran-4-yl)methylamino, (tetrahydro-3-furanyl)amino,

- 133 -

(2-(1*H*-imidazol-1-yl)ethyl)amino, 2-hydroxyethylamino, 2-(2-hydroxyethoxy)ethylamino, tetrahydro-1(2*H*)-pyrimidinyl, 3-(acetyltetrahydro)-1(2*H*)-pyrimidinyl, piperazinyl, 4-(2-hydroxyethyl)-1-piperazinyl, 4-(ethoxycarbonyl)-1-piperazinyl, 4-acetyl-1-piperazinyl, piperidinyl, 4-(trifluormethyl)-1-piperidinyl, 4-(difluoromethyl)-1-piperidinyl, 4-(phenylmethyl)-1-piperidinyl, 4-phenoxy-1-piperidinyl, 4-cyano-1-piperidinyl, 4-methoxy-1-piperidinyl, 4-ethoxycarbonyl-1-piperidinyl, 4-hydroxy-1-piperidinyl, 4-carboxy-1-piperidinyl, 4-(aminocarbonyl)-1-piperidinyl, 4-methylthio-1-piperidinyl, 4-methylsulfonyl-1-piperidinyl, 4-morpholinyl, 3,5-dimethylmorpholinyl or 2-phenyl-4-morpholinyl;

R is H or methyl,

X is -NH-; and

Y is phenyl that is unsubstituted or substituted by one or two identical or different substituents selected from fluorine, chlorine, bromine; lower alkyl, trifluoromethyl; 4-chlorophenyl, 2-, 3- or 4-methylphenyl, 4-chloro-5-trifluoromethylphenyl, 3-bromo-5-trifluoromethylphenyl, 3,5-dimethylphenyl; 4-methyl-3-iodophenyl, 3,4-*bis*(trifluoromethyl)phenyl or 3-bromo-4-ethyl-phenyl;

or an *N*-oxide or pharmaceutically acceptable salt thereof.

6. A compound of Claim 2,

wherein

r is 1;

n is 0 ;

m is 0;

A, B, D and E are each CH or CQ and T is N;

Q is a substituent on one carbon atom selected from amino, *N*-methylamino, *N*-ethylamino, *N*-(*n*)-propylamino, *N*-isopropylamino, 2-cyanoethylamino, 3-(methoxyphenyl)amino, 3-(4-morpholinyl)propylamino, 3-(pyridinyl)methylamino, 2-(2-pyridinyl)ethylamino, 4-(1*H*-imidazol-1-yl)butylamino, 4-(trifluoromethoxyphenyl)amino), (methylaminosulfonyl)amino, (methylsulfonyl)amino, (tetrahydro-2*H*-pyran-4-yl)amino, (tetrahydro-2*H*-pyran-4-yl)methylamino, (tetrahydro-3-furanyl)amino, (2-(1*H*-imidazol-1-yl)ethyl)amino, 2-hydroxyethylamino, 2-(2-hydroxyethoxy)ethylamino, piperidinyl, 4-(trifluormethyl)-1-piperidinyl, 4-(difluoromethyl)-1-piperidinyl, 4-(phenylmethyl)-1-piperidinyl,

- 134 -

4-phenoxy-1-piperidinyl, 4-cyano-1-piperidinyl, 4-methoxy-1-piperidinyl, 4-ethoxycarbonyl-1-piperidinyl, 4-hydroxy-1-piperidinyl, 4-carboxy-1-piperidinyl, 4-(aminocarbonyl)-1-piperidinyl, 4-methylthio-1-piperidinyl, 4-methylsulfonyl-1-piperidinyl or morpholinyl;

R is H;

X -NH-; and

Y is phenyl that is unsubstituted or substituted by chlorine, methyl, trifluoromethyl, isopropyl, *tert*-butyl, methoxy, 4-trifluoromethoxyphenyl; naphthyl; cyclohexyl that is unsubstituted or substituted by lower alkyl, indolyl that is unsubstituted or substituted by halogen or by lower alkyl;

or an *N*-oxide or pharmaceutically acceptable salt thereof.

7. A compound of Claim 6,

wherein

r is 1;

n is 0;

m is 0;

A, B, D, and E are each CH and T is N;

Q is a substituent on one carbon atom selected from morpholinyl;

R is H;

X is -NH-; and

Y is phenyl that is substituted in the 4-position by *tert*-butyl or trifluoromethyl;

or an *N*-oxide or pharmaceutically acceptable salt thereof.

8. A compound of Claim 4,

wherein

r is 1;

n is 0;

m is 0;

A, B and D are each CH, and E and T are each N;

X is -NH-;

- 135 -

Y is phenyl that is substituted in the 4-position by *tert*-butyl; and

Q is a 2-hydroxyethylamino substituent on D;

or an *N*-oxide or pharmaceutically acceptable salt thereof.

9. A compound of Claim 1,
wherein

n is from 0-2;

r is from 0-2;

m is from 0-4;

J is a bicyclic heteroaromatic ring system, selected from indolyl, isoindolyl, quinolyl, isoquinolyl, quinazolyl, purinyl, cinnolyl, naphthyridinyl, phthalazinyl, isobenzofuranyl naphthyridinyl, phthalazinyl, chromenyl and purinyl;

Q is a substituent on either one or both rings of the bicyclic ring system, and on one or two carbon atoms on either one or both rings of the bicyclic ring system, selected from the group consisting of halogen, unsubstituted or substituted lower alkyl, -OR₂, -SR₂, -NR₂, -NRS(O)₂N(R)₂, -NRS(O)₂R, -S(O)R₂, -S(O)₂R₂, -OCOR₂, -C(O)R₂, -CO₂R₂, -NR-COR₂, -CON(R₂)₂, -S(O)₂N(R₂)₂, cyano, tri-methylsilanyl, unsubstituted or substituted aryl, unsubstituted or substituted heteroaryl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted heterocycloalkyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl, -C₁₋₄alkyl-heterocyclyl, amino, mono- or di-substituted amino;

R is H or lower alkyl;

R₂ is unsubstituted or substituted alkyl, unsubstituted or substituted cycloalkyl, phenyl, -C₁₋₄alkyl-aryl, -C₁₋₄alkyl-heteroaryl or -C₁₋₄alkyl-heterocycloalkyl;

X is Y, -N(R)-, oxa, thio, sulfone, sulfoxide, sulfonamide, amide or ureylene;

Y is H, lower alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl or substituted or unsubstituted heterocycloalkyl; and

Z is amino, mono- or di-substituted amino, halogen, alkyl, substituted alkyl, hydroxy, etherified or esterified hydroxy, nitro, cyano, carboxy, esterified carboxy, alkanoyl, carbamoyl, *N*-mono- or *N,N*-di-substituted carbamoyl, amidino, guanidino, mercapto, sulfo, phenylthio, phenyl-lower alkylthio, alkylphenylthio, phenylsulfinyl, phenyl-lower alkylsulfinyl, alkylphenylsulfinyl, phenylsulfonyl, phenyl-lower alkanesulfonyl or

- 136 -

alkylphenylsulfonyl, and where, if more than one radical Z is present ($m \geq 2$), the substituents Z are identical or different;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

10. A compound of Claim 9,
wherein

n is 0;

r is 0;

m is 0;

J is a bicyclic heteroaromatic ring system, selected from indolyl, isoindolyl, quinolyl, isoquinolyl, quinazolyl, purinyl, cinnolyl, naphthyridinyl, phthalazinyl, isobenzofuranyl naphthyridinyl, phthalazinyl, chromenyl and purinyl;

R is H or lower alkyl;

X is Y, -N(R)-, oxa, thio, sulfone, sulfoxide, sulfonamide, amide or ureylene; and

Y is H, lower alkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl or substituted or unsubstituted heterocycloalkyl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

11. A compound of Claim 10,
wherein

n is 0;

r is 0;

m is 0;

J is isoquinolyl;

X is NH; and

Y is 4-*tert*-butylphenyl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

12. A compound of Claim 10,
wherein

n is 0;

- 137 -

r is 0;

m is 0;

J is quinazolyl;

X is NH; and

Y is 4-*tert*-butylphenyl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

13. A compound of Claim 10,

wherein

n is 0;

r is 0;

m is 0;

J is isoquinolyl;

X is NH; and

Y is 2-*tert*-butyl-pyrimidin-5-yl;

or an *N*-oxide or a pharmaceutically acceptable salt thereof.

14. A pharmaceutical composition comprising a compound according to Claim 1 in combination with a pharmaceutically acceptable carrier.

15. A method of treating a patient having a disease characterized by excessive signaling through the MAP kinase signaling pathway, which comprises administering to the patient an effective RAF kinase inhibiting amount of a compound of Claim 1.

16. A method of Claim 15, wherein the disease characterized by excessive signaling through the MAP kinase signaling pathway is a cancer.

17. A method of Claim 16, wherein the cancer is a melanoma, a colorectal cancer, an ovarian cancer, a glioma, an adenocarcinoma, a sarcoma, a breast cancer or a liver cancer.

18. A method of Claim 17, wherein the cancer is a melanoma.

- 138 -

19. A method of treating melanoma in a patient which comprises:
- (a) testing melanoma tissue from the patient to determine whether the melanoma tissue expresses mutant RAF kinase or overexpresses a wild-type RAF kinase; and
 - (b) treating the patient if the melanoma tissue is found to overexpress a wild-type RAF kinase or express an activating mutant B-RAF kinase with an effective RAF kinase inhibiting amount of a compound of Claim 1.
20. A method of Claim 19, wherein the mutant RAF kinase corresponds to a mutation in the B-RAF kinase gene selected from G1388A, G1388T, G1394C, G1394A, G1394T, G1403C, G1403A, G1753A, T1782G, G1783C, C1786G, T1787G, T1796A and TG1796-97AT.
21. A method of Claim 20, wherein the melanoma expresses a mutant RAF kinase.
22. A method of Claim 21, wherein the mutant RAF kinase is a V599E mutation.